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ABSTRACT

It is common for information about students to be transferred from one learning institution to another or to some other location. The ease with which student records can be transferred and understood often depends on their design, the efficiency of the delivery system, and how the information is handled by the receiver. The Standardization of Postsecondary Education Electronic Data Exchange (SPEEDE)/Exchange of Permanent Records Electronically for Students and Schools (ExPRESS) is intended to help school districts and postsecondary educational institutions transmit student academic records. This guide provides a general introduction to the SPEEDE/ExPRESS format and plans for making it a widely used system for exchanging student records. This introduction is followed by a section describing the development of the format and system. Next is a description of the system's content and discussion of electronic records transmitting. The last few sections describe the implementation of the electronic student-records system and future activities. (JPT)

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SPEEDE ExPRESS

An Electronic System for Exchanging Student Records

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SPEEDE

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INTRODUCTION

Transferring information about students is a commonplace event for schools and colleges, both public and private.

- When a student moves from one school to another, information about the student's background, coursework, and attendance is generally compiled in a student record, or transcript, and sent to the receiving school so that appropriate educational decisions can be made about the student.
- When a student completes high school, the student's transcript may be sent to a postsecondary institution or employer.
- A student who transfers from one postsecondary institution to another has a transcript sent so that he or she may obtain credit for coursework completed or qualify to work on another academic degree.
- Once a student has completed a postsecondary degree, a transcript may be sent to a proposed employer.

The ease with which the records are understood and transferred often depends upon the design of the student record format (for example, the extent to which the format is automated/computerized, and how much information is maintained), the efficiency of the delivery system (e.g., mail, fax, telecommunications), and the way the information is handled by the receiving school or employer.

In 1989, building on projects completed in Florida and Texas, work began on the development of a national (eventually, an international) standard for exchanging student records more efficiently. This system would tap into the sophisticated automation of many education agencies and institutions.

The Standardization of Postsecondary Education Electronic Data Exchange (SPEEDE)/Exchange of Permanent Records Electronically for Students and Schools (ExPRESS) Electronic Transcript System is intended to assist school districts (grades prekindergarten through 12) and postsecondary educational institutions in the U.S. and Canada in the process of transmitting student academic records (transcripts) from one educational institution or agency to another educational institution, agency, corporation, or other appropriate recipient. One of the principal goals of the SPEEDE/ExPRESS project is to encourage increased compatibility in state, local and institutional education information systems by providing a very practical tool that will serve the needs of schools and students.

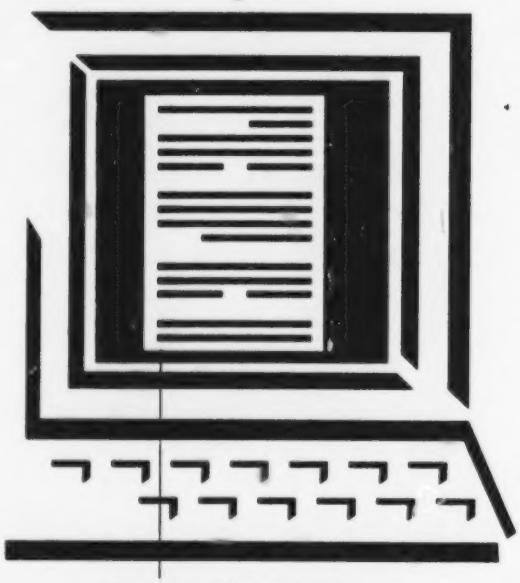
This document provides a general introduction to the SPEEDE/ExPRESS format and the plans for making this a widely used system for exchanging standard student records. The next section describes the development of the format and system. Following that section is a description of its content and a discussion of electronic means of exchanging records, including sections on security and confidentiality. The last few sections deal with the implementation of the electronic student records system and future activities.

DEVELOPMENT OF THE SPEEDE/ExPRESS ELECTRONIC TRANSCRIPT SYSTEM

The SPEEDE/ExPRESS Electronic Transcript System consists of two components: 1) formats for the standard transcript and related processes to request and acknowledge receipt of a transcript, and 2) the electronic means for transmitting the transcript. The development of each of these is described below.

The Standard Transcript and Other Related Formats.

The development of the SPEEDE/ExPRESS Electronic Transcript formats represents the efforts of several groups. The American Association of Collegiate Registrars and Admissions Officers (AACRAO) with assistance from the National Center for Education Statistics (NCES) of the U.S. Department of Education sponsored the Committee on Standardization of Postsecondary Education Electronic Data Exchange (SPEEDE), which participated in the development of the standard formats and is responsible for the application of the SPEEDE/ExPRESS formats to postsecondary student transcripts. AACRAO membership includes over 2,300 member institutions primarily in the U.S. and Canada. These postsecondary institutions are implementing the process of transmitting the student academic record in this standard format over electronic networks.



Jensen High School Format

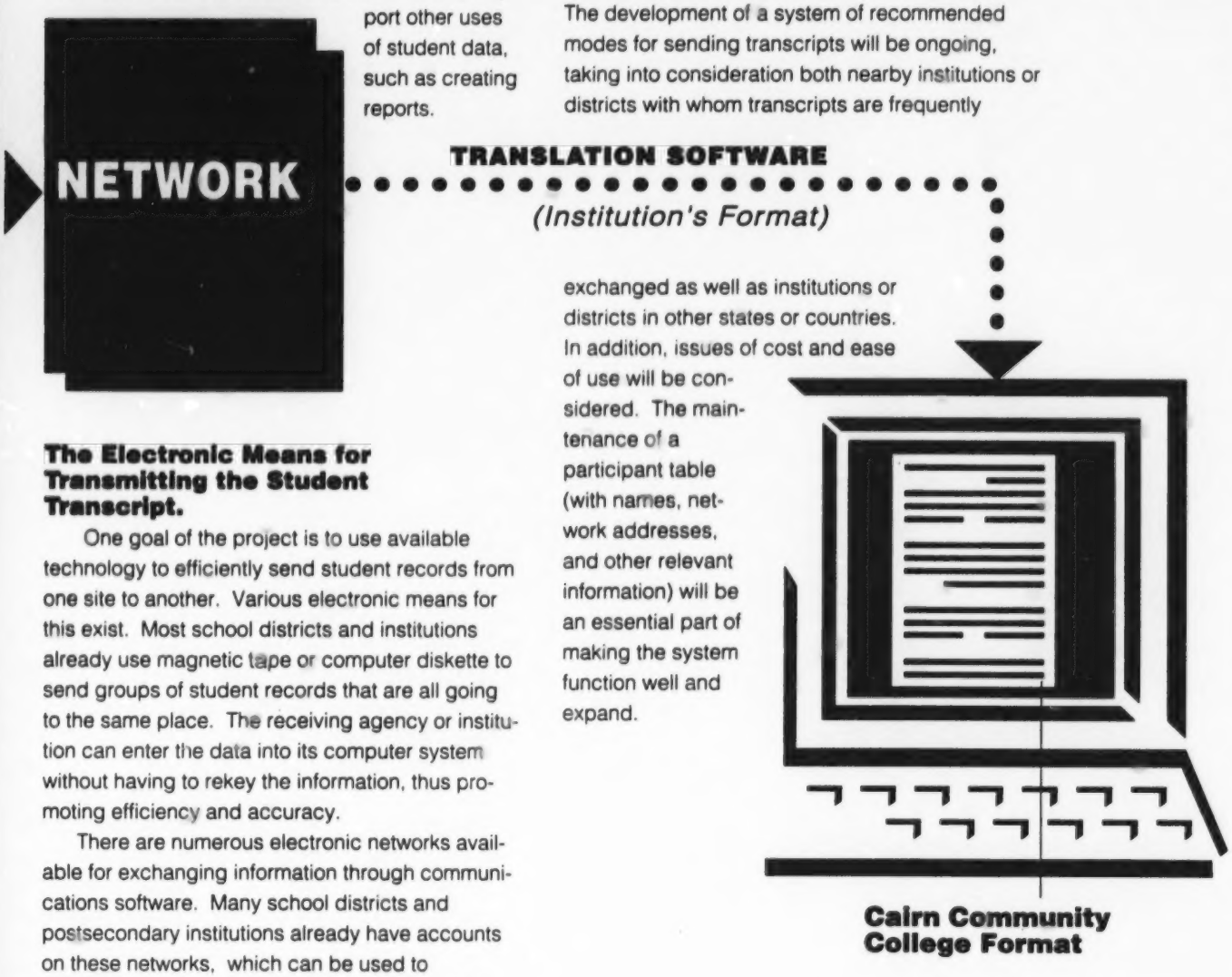
NCES and the Council of Chief State School Officers (CCSSO) led the efforts to make the SPEEDE/ExPRESS formats applicable for prekindergarten through Grade 12 student records. The Exchange of Permanent Records Electronically for Students and Schools (ExPRESS) task force consisted of representatives of state and local education agencies in five states. The task force worked to ensure that the format included key information for prekindergarten/elementary/secondary students and to make the system appropriate for schools, school districts, and state education agencies.

The SPEEDE/ExPRESS formats were developed according to the guidelines of the American National Standards Institute's (ANSI) Accredited Standards Committee (ASC X12). The ASC X12 approves standards for the electronic transmission of standard documents (called transaction sets). The format for the Student Educational Record (Transcript) Transaction Set (130) was approved by the ASC X12 in February 1992. Formats for the Student Educational Record (Transcript) Acknowledgment Transaction Set (131), the Request for Student Educational Record (Transcript) Transaction Set (146), and the Response to Request for Student Educational Record (Transcript) Transaction Set (147) were approved in September 1992. Each of these formats is described in more detail in the next section.

TRANSLATION SOFTWARE *(SPEEDE/ExPRESS Format)*

A major benefit of the SPEEDE/ExPRESS formats is that districts and institutions using the standard formats to send and receive student records will be better able to interpret information from other agencies and institutions. Software can be written or purchased to translate information about a student from a school district or institution's existing student record system into the standard format for sending the data. Similarly, software can be used for translating data received about a student into the receiving school district or institution's format for incorporation into their student

Student records are exchanged using computer-to-computer transmission, diskettes, or magnetic tapes. This process decreases the time needed to send and receive student information. If data are incorporated directly into the receiving district or institution's system, there will be fewer errors than if the data were rekeyed. The SPEEDE/ExPRESS format can also be used to support other uses of student data, such as creating reports.



All of these mechanisms can be used to exchange student records efficiently. The selection of a single mode of transmission is unlikely. The development of a system of recommended modes for sending transcripts will be ongoing, taking into consideration both nearby institutions or districts with whom transcripts are frequently exchanged as well as institutions or districts in other states or countries. In addition, issues of cost and ease of use will be considered. The maintenance of a participant table (with names, network addresses, and other relevant information) will be an essential part of making the system function well and expand.

The Electronic Means for Transmitting the Student Transcript.

One goal of the project is to use available technology to efficiently send student records from one site to another. Various electronic means for this exist. Most school districts and institutions already use magnetic tape or computer diskette to send groups of student records that are all going to the same place. The receiving agency or institution can enter the data into its computer system without having to rekey the information, thus promoting efficiency and accuracy.

There are numerous electronic networks available for exchanging information through communications software. Many school districts and postsecondary institutions already have accounts on these networks, which can be used to exchange student records. There are also state networks that have been developed to facilitate the exchange of information within the state.

CONTENT OF THE STANDARD FORMATS

Four standard formats (called transaction sets for electronic data interchange—EDI) have been developed: Student Educational Record (Transcript)-Transaction Set 130; Student Educational Record (Transcript) Acknowledgment-Transaction Set 131; Request for Student Educational Record (Transcript)-Transaction Set 146; and Response to Request for Student Educational Record (Transcript)-Transaction Set 147. In addition, another ASC X12 transaction set, the Functional Acknowledgment, Transaction Set 997, may be used.

Student Educational Record (Transcript) - Transaction Set 130.

This transaction set can be used by schools, school districts, and postsecondary institutions to transmit current and historical records of educational accomplishments and other important information for students enrolled at the sending schools and institutions. This record contains the information needed to make appropriate initial educational placements for students in prekindergarten through Grade 12. For postsecondary institutions, the record includes information needed for determining if a student will be accepted for enrollment and for placing the student in appropriate courses and educational programs at the receiving institution. Because the data are used for making important educational decisions, it is crucial that the information be available on a timely basis.

The student transcript contains personal history and identifying information about the student, the current academic status, dates of attendance, courses completed with grades earned, degrees and diplomas awarded, health information (usually used only by prekindergarten through Grade 12) and testing information. Data elements (items of information) for each of these areas are grouped into data segments (sets of related data elements) which are equivalent to "records" in a paper document.

While many of the data segments are optional, there are some data segments that are required for EDI transmission. And within data segments there are mandatory and optional data elements. Other than the segments required for EDI transmission, the only data segments that are mandatory provide key identification information required for determining whose record is being sent. Most of the data segments (and within them the data elements) are optional.

Schools, districts, and postsecondary institutions are encouraged to include any data they have that fit into the standard format and that they believe will be useful to the receiving district or institution. In cases where there are state or local laws or regulations that restrict the transmission of certain data elements, the sending entity may simply elect not to send the restricted data segments or data elements.

Most of the information in the transcript format is set up in "loops." Loops are sets of segments that provide multiple instances of related information. For instance, there is a test loop that provides for each national, regional, or local test a student has taken, information about the name of the test, when the test was taken, level of the test and student, date and type of norms, test language, and scores. If more than one test is being reported, the test loop would be repeated. Loops are used to send personal information about the student and family, student academic status and enrollment, health, special program participation, coursework, degrees and other academic summary information.

Student Educational Record (Transcript) Acknowledgment - Transaction Set 131.

This transaction set serves both a security and information purpose. In returning certain key data elements to the known address of the sender, it ensures that the data originated with the sender of record and that they were received intact.

Most of the data segments in this transaction set are mandatory. Included are segments containing information about the sending institution, the student's name, the student's identification number, number of course segments sent, and academic summary information.

Request for Student Educational Record (Transcript) - Transaction Set 146.

This transaction set is used to request a student's record from a school, district, or institution that the student previously attended. Included are data segments containing information needed to ensure that the appropriate student's record is sent, such as student's and parents' names, previous address, identification numbers, demographic information, and dates of enrollment.

Response to Request for Student Educational Record (Transcript) - Transaction Set 147.

This transaction set is used to respond to a Request for Student Educational Record if the school, district, or institution to which the request was made is unable to respond immediately with a student transcript. It can also be used to tell the requesting district or institution when the transcript will be sent or why it will not be sent. Included are segments repeating information about the student whose record was requested, a request rejection reason code, and information about paper documents which may need to be sent in place of an electronic transcript.

FORMAT EXAMPLES

The transaction set formats describe the order in which data should be listed and codes that can be used to shorten or summarize more lengthy information. Flexibility is provided for instances when data are not maintained in a student record system in a way that fits with the standard format. The extent to which the codes can be used, however, promotes interpretability and decreases the size of the electronic transcript.

As described above, information about the student is translated into standard data segment formats. Each data segment has several components. The Data Segment Identifier is an abbreviation identifying the type of information included in the segment. It is a unique two- or three-letter identifier (for example, "IMM" represents the data segment for "immunization"). Each data segment contains Data Element Separators—characters that the computer uses to identify when it has encountered a new data element. This can be any character that will not be used as valid data in the transaction set (such as a "*"). Each data element has a Data Element Reference Designator (a unique reference number assigned

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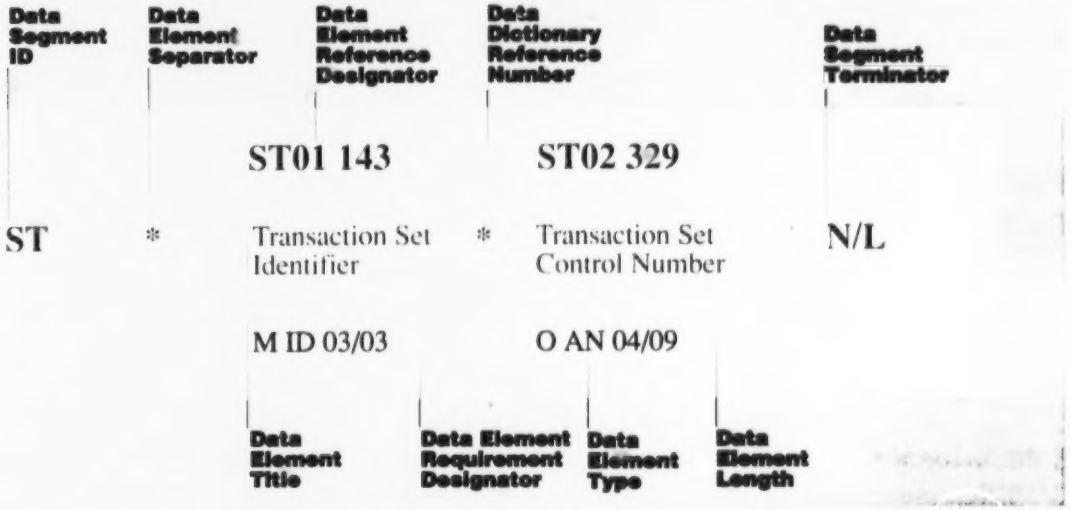
to it within the segment) and a Data Dictionary Reference Number (a unique number assigned to the data element and maintained by ASC X12). In addition, each data element has a Data Element Title (such as Immunization Type Code), Requirement Designator (mandatory, conditional, or optional),Data Element Type (for example, alpha, alphanumeric, date, or ID code), and a Data Element Length (minimum and maximum size assigned). All are shown below.

Components of Data Segment



Example of Data Segment Immunization (IMM)

Data Element	*Immunization Type*	*Immunization Year*	*Immunization Month*	*Immunization Day*	*Status*
Sample Data	Poliovirus	1971	April	15	1st
SPEEDE/ ExPRESS *Record*	V04.02	1971	04	15	01

Information about every data segment and data element is specified in the publication, "A Guide to the Implementation of the SPEEDE/ExPRESS Electronic Transcript." In addition, code lists for data elements are included where appropriate.

Above is an example of a data segment and its data elements. The IMM segment contains information about immunizations received by the student. Included are data elements containing the immunization type, date, and status.

EDI AND STUDENT TRANSCRIPTS Electronic Data Interchange (EDI) is the exchange of routine business transactions in a computerized format. For years, businesses have used EDI for inquiries, planning, purchasing, acknowledgment, pricing, order status, scheduling, test results, shipping and receiving, invoices, payments, and financial reporting, all of which were traditionally done using paper forms. The widespread use of computers and the introduction of techniques for computer telecommunications provided the means for improving the transmission and processing of business data. The ASC X12 represents a cooperative effort to develop EDI standards that are industry wide. In developing the ASC X12 series of American National Standards, the ASC X12 seeks to minimize the necessity for users to reprogram their internal data processing systems in order to be able to exchange data. Standards are structured so that computer programs can translate data from internal to external formats and vice versa.

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It is estimated that 10,000 organizations in industries such as banking, shipping, and manufacturing, use EDI standards and enjoy many of the following benefits of EDI:

- Reduction of paperwork and associated savings:
  - One-time data entry;
  - Reduced errors, improved error detection;
  - On-line data storage;
  - Reduced clerical workload and phone chatter;
  - Higher productivity without increasing staff;
- More timely communications:
  - Rapid exchange of data;
  - Elimination of mail charges, courier services.

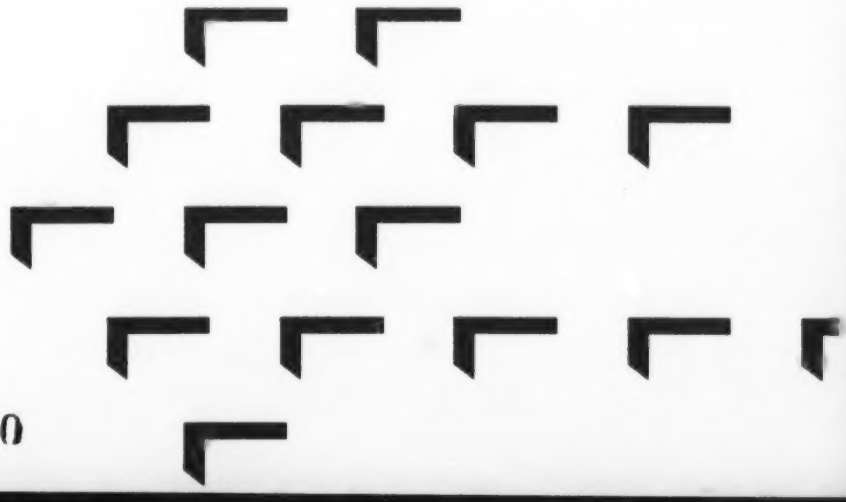
School districts and postsecondary institutions that use the SPEEDE/ExPRESS electronic transcript can similarly benefit. At the elementary/secondary level, use of EDI means that information crucial for placing students into appropriate educational environments can be obtained quickly and in an easily interpreted format. It means that transcripts can be sent to postsecondary institutions more efficiently. For postsecondary institutions, receipt of transcripts sent using EDI is more efficient and easier to incorporate into existing systems. Transmission of student records can be handled with minimal cost.

SECURITY OF AN ELECTRONIC TRANSCRIPT SYSTEM Policies and procedures guaranteeing the security of an electronic transcript system are important to both sending and receiving agencies and institutions, as well as to the students and their families. These systems can be far more secure than the present paper systems if they are implemented correctly.

Security breaches and infractions are most often the result of actions or inactions by "insiders" rather than by strangers or outsiders with criminal intent. Registrars and data processing personnel should be diligent and alert to the possibilities and urge everyone to practice good internal security measures, whether for paper or electronic transcripts. These systems can be far more secure than the present paper systems if implemented correctly.

To address some of the security needs of such a system, a format was developed for acknowledgment of receipt of a student transcript (Transaction Set 131). This acknowledgment includes some significant items from the transmitted transcript and is sent back to the address of the sending school, school district, or postsecondary institution. The sending institution can check to see if the appropriate data were received. When an acknowledgment is received for a transcript not sent, or if the data received as verification are not correct, the sending institution is alerted by the computer acknowledgment to check on the transmission.

Other procedures can be used to ensure the security of the system. Maintaining logs of all transcripts sent and received, sending and checking acknowledgments, and following up on discrepancies all contribute to the security of such a system.



CONFIDENTIALITY OF ELECTRONIC STUDENT RECORDS

The Federal Family Educational Rights and Privacy Act of 1974 dictates the content, use of, and access to student record information. The student record includes all materials maintained by a school district or institution about the student with the intent to aid in the educational process. Natural parents, legal guardians, and students (age 18 or older) have certain rights concerning the contents and release of the student record.

This law gives school or institution personnel who have a legitimate educational interest access to educational records upon receipt of an official request from a school district or institution without parent notification or parent authorization. These records can be transferred to another public or private school district or institution in which the student is to be enrolled without parental or student consent, but the parent or student is supposed to be notified that the record has been transferred. Local and state policies may dictate what portions of the student record may be sent to other agencies or institutions. Student record information other than basic directory information (name, address, phone number), cannot be disclosed to non-school agencies and individuals without parental or student consent.

Because the law does not address the complexities of this new EDI technology, sending student records via EDI may require legal opinions at the state or local level. SPEEDE/ExPRESS provides a standard format for sending student data likely to be found on a permanent record or transcript. State or local laws and regulations should govern which data elements an institution can transmit.

IMPLEMENTATION OF THE SPEEDE/ExPRESS FORMAT

A series of events must occur before a school district or institution is prepared to participate in electronic exchange of data about students.

To Send:

1. Student data must be maintained in an "on-line" database in a computer. Information about the student, courses taken, and other relevant data should be kept in a longitudinal computer file, or a series of files, with agreement on data structures, codes, and methods of combining and using the files.

2. Programs must be in place to extract the transcript data from the computer files and produce an official printed transcript or record. This program can then be modified to produce a properly coded electronic file that can be converted to the agreed upon electronic (SPEEDE/ExPRESS) format.

3. An on-line transcript order system should be in place, allowing entry of identifying (student ID) and control (copies, destination, and parameters—such as instructions to include classes from the current semester or school year) information. This system should allow entry of destination codes for transcripts to be delivered using electronic media.

4. The sending institution or district must have the ability to map information in its system to codes which are defined in the SPEEDE/ExPRESS format. Transmission of codes allows faster and more efficient processing by the receiving institution or district.

5. The SPEEDE/ExPRESS format will differ from the printed transcript in several ways. Some data elements included on a printed transcript (such as student activities and club participation) might possibly be omitted from the electronic transcript. Other items sent as text in print (institution names, for instance) may be sent as codes. The order of data segments will definitely be altered, and the

sequence forced to meet a rigid standard in order to guarantee an accurate interpretation by the recipient. Additional information might be provided to improve processing by the recipient (for example, a Classification of Instructional Programs (CIP) code or a code denoting content or level of a particular course). Programs will be needed to convert the electronic version of the official transcript to meet all of these requirements. Adoption of the X12 standards does impose additional requirements, such as data compressions and insertion of delimiters. The medium used may impose additional requirements, such as chopping the document into fixed segments (80 characters, perhaps), counting segments and characters sent, and/or adding control information about the sending and receiving institutions or districts.

6.The electronic SPEEDE/ExPRESS transaction set (transcript or student record) must be either copied to a fixed electronic medium (diskette or tape) or transmitted via a network. The latter requires that a computer at the sending institution have the capability to connect via telephone, cable, or other means to the network or other computers. This connection must ensure the authenticity of the student data, at high transmission speeds, and with less direct involvement of registrar/admissions staff or other student records personnel. However, if secure upload/download activity is supported, PC's provide fairly simple techniques, with very low initial expense, and allow more direct interaction by registrars and other school personnel—very advantageous for testing and for tracking transactions. Dedicated telephone lines are desirable. One or both of these communications capabilities must exist, unless the institution wishes to always restrict transmissions to tape or diskette.

7.The institution needs to enter into agreement with individual institutions or an umbrella organization representing a group of institutions, with commitments to certain practices, procedures, and standards. CCSSO and AACRAO will assist in the creation and oversight of some agreements. School districts will benefit from statewide adoption of the format and the involvement and assistance of the state education agency.

8.Budget dollars must be allocated to cover costs of initial entry into a network, annual fees, administrative network fees, and actual transmission costs. Long distance costs may or may not be included.

To Receive:

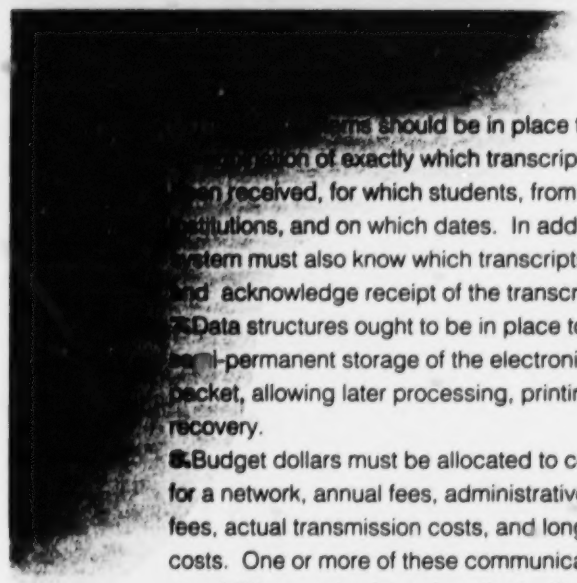
1.The receiving institution or district must have the ability to receive the electronic SPEEDE/ExPRESS transaction set (transcript or student record) that has been copied to a fixed electronic medium (diskette or tape) or transmitted via a network.

2.The institution or district needs to have a signed agreement with individual institutions or an umbrella organization representing a group of institutions, indicating they can receive student records, using certain practices, procedures, and standards.

3.It would be advisable to have in place some sort of database system for all students, or for applicants, allowing selective data elements from transcripts to be captured and stored and an acknowledgement sent for each transcript received.

4.Programs to match documents received electronically with records on this database, and then to create or update records with the transcript data, would be necessary to fully utilize the data in electronic form. However, this is not absolutely required.

5.Whether or not the data are processed electronically, the ability to print an institutionally acceptable subset of the information received in the electronic transcript will almost surely be needed. It may not be routinely and automatically invoked for every document, but will be needed for scholarship review, parallel testing of transmissions, and possible document archival procedures.



...ms should be in place to allow ...on of exactly which transcripts have ...n received, for which students, from which ...titutions, and on which dates. In addition, the ...stem must also know which transcripts to expect ...nd acknowledge receipt of the transcripts.

...Data structures ought to be in place to allow ...mi-permanent storage of the electronic transcript ...cket, allowing later processing, printing, or error recovery.

...Budget dollars must be allocated to cover costs for a network, annual fees, administrative network fees, actual transmission costs, and long distance costs. One or more of these communications capabilities must exist, unless the institution wishes always to restrict transmissions to tape or diskette.

Since the electronic transmission of transcripts takes the place of mailing a paper transcript, steps in the paper process must have counterparts in the electronic scheme. In both cases, the action is initiated by either a request from a student, a parent, or some other entity that has prior approval (perhaps as a convention adopted by a state). In any case, there should be a timetable for transmission that is routinely followed. It could be (a) immediate, (b) next day, (c) two days after the completion of grade processing or degree posting, (d) Tuesdays and Fridays, or some other regular time. Generally the transcript data should be extracted from the student database on the date the transcript is to be transmitted (or perhaps the night before), and the date stamp on the electronic record should then closely approximate the effective date of the information in the transcript.

A participant should be prepared to inform the requestor of the date the transcript will be transmitted. If the requestor calls to check on the status of the request, the sending entity should always be able to provide the expected transmission date. If sufficient acknowledgment procedures are in place, whether provided automatically by the particular transmission network or, by agreement, provided by the recipient, then the sending entity should be prepared to release that information as well.

There is some overhead, both in staff time and expense, in connecting to a value-added commercial network to send or receive transcripts. However, considering that transmission replaces the postal system, several days are gained on each end as there is no need to prepare and deliver the paper document, nor to sort, open and process the received document. If value-added networks are used to transmit transcripts, expenses can be reduced by sending transcripts at night when the rates are lower or on a periodic basis. During the times when daily volume of transcripts to be sent is relatively high and at those critical periods after grade processing and before admission deadlines, transcripts could be sent more frequently.

Electronic transmission is not necessarily required. If two schools are in close proximity or have a very large volume of data to exchange, it may be more appropriate and economical to deliver transcripts in the SPEEDE/ExPRESS format on other electronic storage media, such as tape or diskette. Again, delivery schedules should be known or available to both institutions and students.

Testing to See if You Are Ready to Send Records.

To test that you are ready to send transcripts in the SPEEDE/ExPRESS format, you may send to another participating district or institution transcripts that are (a) test data entirely, (b) real data sent in test mode to debug related programs or try out network connections, or (c) real data sent in production mode, but in parallel with an official paper document. Real data should not be sent in official production mode until you are confident that your programs and procedures are fully tested.

When testing, it is good practice for a new member of the electronic transmission process to enter into a testing relationship with a small num-

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ber of neighboring or participating institutions or districts. Transmission could be restricted to this group until all parties are comfortable with the results.

Testing will be facilitated by maintenance at an institution or district or a central testing site of a small group of electronic test records that use all of the allowable features of the format. Parallel paper copies will be mailed to testing parties and a schedule set up for repeated transmission of these test packets until they are satisfactorily received.

Acknowledgment of receipt of a document will be required of the recipient. This is even more beneficial when in test mode, and instructions regarding this expectation should be accessible electronically from the network administrator, when the system is fully functional.

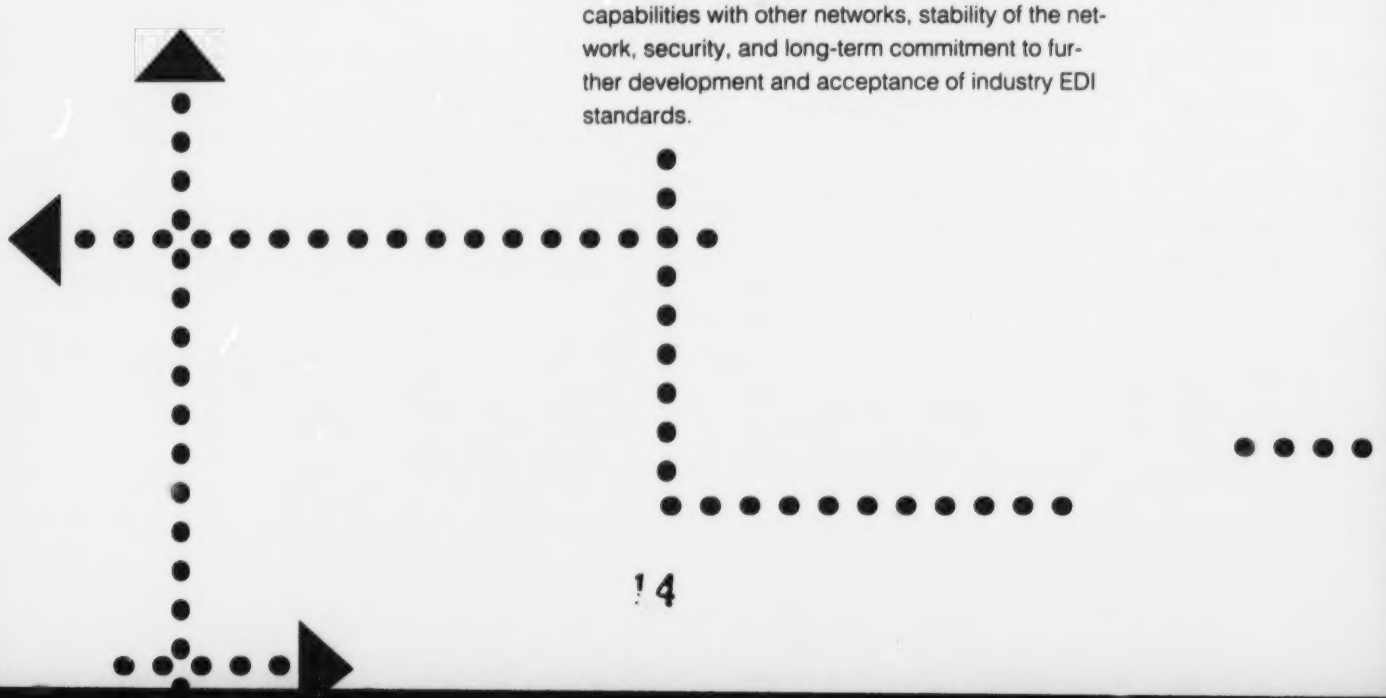
A central database of postsecondary institutions, schools, school districts, and state education agencies participating in the system will be maintained and made available by CCSSO and AACRAO for operational and security purposes. It will include a valid identifier for the entity, its address on the network(s), a contact person, the sending and receiving status, and the version of the transaction set(s) in use. This information must be kept current at each institution or district.

Electronic Communication.

Transmission of student records using electronic means can be done via direct computer to computer communications with other participating institutions or districts or through a value-added network, run by the state or other educational entity or by a third party. Direct computer-to-computer communications with another institution or district requires that both (1) use similar communication protocols (line timing, line speed, error detection, retransmission procedures, and message control), (2) support the same transmission speed, (3) have dial-up lines available at the same time or leased lines, and (4) have compatible hardware.

For most participants, the use of third-party networks may be more appropriate. Electronic mailboxing permits participants to send transaction sets to another's mailbox for storage. When the other participant is ready, it will retrieve the transaction sets without concern as to the other participant's transmission models, protocols, and transmission speeds, which are handled by the third-party service. This enables users to establish trading partnerships with many participants with varied computer equipment and only requires compatible telecommunications equipment with a third-party service.

Selection of a third-party service may be effected by the participant or in collaboration with the system administrator. The selection process should take into account ease of use, gateway capabilities with other networks, stability of the network, security, and long-term commitment to further development and acceptance of industry EDI standards.



Implementation Guidelines.

The SPEEDE and ExPRESS task forces developed guidelines for the implementation of the SPEEDE/ExPRESS Electronic Transcript. These guidelines include general information, specific standards for the four transaction sets, and appendices, one of which includes many of the coding lists used by the SPEEDE/ExPRESS format. This Implementation Guide contains the information needed to translate data from one student record system into the standard X12 formats.

The Implementation Guide is maintained by the SPEEDE/ExPRESS administrator — the Council of Chief State School Officers — with the assistance of AACRAO, the SPEEDE subcommittee and ExPRESS task force members. Changes to the format may be implemented as more entities use the electronic transcript. A process has been established to enable users to make suggestions that will be considered and submitted to the appropriate X12 subcommittee, if necessary. Changes to the Implementation Guide will be incorporated on an annual basis, and revised pages will be sent to users of record of the Implementation Guide. This process is described in more detail in the Implementation Guide. Information about obtaining the Implementation Guide is included in attachment A.

System Administration.

Although the SPEEDE/ExPRESS Electronic Transcript System is still in a developmental stage, the formats have been approved and are being used for sending student records in some locales. The development of national and international delivery systems will require the consideration of many issues regarding networks, security, expansion, and support. Under contract to the National Center for Education Statistics, the Council of Chief State School Officers and its subcontractor, the American Association of Collegiate Registrars and Admissions Officers, support the development of the system and plan for the long- term provision of services. A governing board has been established to guide the CCSSO in its work. This governing board includes representatives of groups with a vested interest in the provision of education services to students. The following organizations are participating as members of the CCSSO Governing Board:

American Association for Counseling and Development

American Association of School Administrators

American Association of Collegiate Registrars and Admissions Officers

American Council on Education

American Federation of Teachers

Council for American Private Education

Council of Chief State School Officers

Council of Great City Schools

National Alliance for Business

National Alliance of Black School Educators

National Association of Elementary School Principals

National Association of Secondary School Principals

National Association of State Boards of Education

National Center for Education Statistics

National Coalition of Advocates for Students

National Conference of State Legislatures

National Education Goals Panel

National Governors' Association

National School Boards Association

National Parent Teachers Association

State Higher Education Executive Officers

AACRAO has a standing committee appointed by the AACRAO Executive Director to oversee the postsecondary portion of this project. Each group will address administrative and technical requirements and make recommendations for changes on behalf of its respective users for consideration by the other group and for submission to ASC X12.

The system will continue to receive technical support and guidance from the SPEEDE committee and the ExPRESS task force. Current members of the SPEEDE committee and the ExPRESS task force are included in attachment B.

Barbara Clements, Director of the Education Data System Implementation Project at the Council of Chief State School Officers, has responsibility for the overall management of the SPEEDE/ExPRESS Electronic Transcript System. Jerry Malitz, Elementary/Secondary Statistics Division, National Center for Education Statistics, Washington DC, serves as Project Officer.

EXAMPLES OF THE SYSTEM IN OPERATION Many postsecondary institutions have been receiving magnetic tapes from high schools or school districts for quite some time. These tapes contain magnetic representations of high school transcripts or essential data from the student records to be used by the postsecondary institution in making admission and/or placement decisions. One example of this, underway for almost a decade, is the tape exchange from the Austin Independent School District in Austin, Texas to the University of Texas at Austin. Recently, these two entities have adopted the use of the SPEEDE/ExPRESS format for standardizing how data are submitted and received. Contacts with other institutions of higher education and school districts in the Austin, Texas area have been initiated to promote the use of the standard format and to establish logical trading partnerships. The Alliance of Higher Education of North Texas has supported the longstanding and pioneering efforts to exchange college transcripts over a state network. Through this group, other institutions and districts are becoming involved. The Texas Education Agency (Texas' state department of education) is looking at developing a statewide network and standard for exchanging student records using the SPEEDE/ExPRESS format.

The state of Florida has provided an electronic network at no cost to public school districts and public postsecondary institutions for the transmission of any educational data. Although this network, the Florida Information Resource Network or FIRN, was initially created to send data from public postsecondary institutions and school districts to state agencies in the state capitol, FIRN is now being used to exchange high school and postsecondary transcripts using formats internal to Florida. As of September 15, 1992, 22 of the 37 public postsecondary institutions and 21 of the 67 public school districts are exchanging high school and postsecondary transcripts over the electronic network, in lieu of paper documents. The state of Florida has mandated that all 67 public school districts and all 37 public postsecondary institutions will exchange transcripts electronically using FIRN. Florida is working toward a single entry/exit point for interfacing with the SPEEDE/ExPRESS system.

The nine colleges of the Maricopa Community College District in Phoenix, Arizona are now exchanging academic records electronically with Arizona State University in their own format. They are in the process of converting to the SPEEDE/ExPRESS format.

Two of the campuses of the University of Wisconsin have completed a prototype transmission using the SPEEDE/ExPRESS format, and the University of Oklahoma has completed the programming needed to send transcripts in the SPEEDE/ExPRESS format.

The Los Angeles Unified School District has sent migrant students' records to the Migrant Student Records Transfer System offices in Little Rock, Arkansas. LA Unified is working with the California Department of Education to develop a statewide system in the near future.

Although the delivery process for the SPEEDE/ExPRESS Electronic Transcript System is still in the pilot stages, much activity is underway and many new uses of the format are being considered. A number of EDI vendors have expressed interest in the SPEEDE/ExPRESS system, and are working to make implementation more feasible and timely.

ONGOING AND FUTURE ACTIVITIES

Network Selection.

Although many electronic means exist for exchanging student records, there is a pressing need to "hook up" users of the various networks so that student records can be sent to all participants throughout the U.S. and Canada. Guidelines for the inclusion of and access to various networks are currently being developed.

Participant List.

A central database of schools, school districts, state education agencies, postsecondary institutions and others participating in the project is essential for operational and security purposes. It will include a valid identifier for all entities, their address on the network, a contact person, the sending and receiving status, and the version of the transaction set in use by the participant. Plans call for the development of the "participant list" to be available to participants on paper and "on-line".

Coordination with ASC X12.

As the system is more widely used, the need for changes in the SPEEDE/ExPRESS format may be identified. In addition, there is a need to monitor and work with other groups developing formats for transaction sets that relate to the SPEEDE/ExPRESS Electronic Transcript System. For instance, ASC X12 task groups have developed transaction sets for enrollment certifications and for transmission of the application for financial aid over electronic networks. One area being explored is the electronic transmission of follow-up data from postsecondary institutions back to the high schools.

Continued Development.

An important role of the SPEEDE/ExPRESS administrators is the marketing of the system. Plans call for the provision of workshops to interested parties and for reaching out to potentially interested schools, districts, state education agencies, postsecondary institutions, business, and others.

SPEEDE/ExPRESS

NOTES

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